

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

Claims 1-6 (canceled).

7. (currently amended) A data transmission method for information data containing additional information data therewith, comprising, at a transmitter side, following steps:

a step for preparing data frames of said information data into which the additional information data are to be embedded;

a step for altering at least part of each of the data frame-frames in accordance with predetermined patterns corresponding to the additional information data to be embedded repetitively and separately in the data frames, for the plural continuous frames, ~~repetitively~~; and

a step for transmitting the information data of the data frames embedded repetitively and separately with the ~~repetitive~~ additional information data therein.

8. (currently amended) A data transmission and reception method for information data containing additional information data, comprising, at a transmitter side, following steps:

a step for preparing data frames of said information data into which the additional information data are to be embedded.

a step for altering at least part of data frame in accordance with predetermined patterns corresponding to the additional information data to be embedded, for the plural continuous frames, repetitively, and

a step for transmitting the information data embedded with the repetitive additional information data therein~~for the information data transmitted through the method as claimed in claim 7;~~ and

further comprising, at a receiver side, following steps:

a step for receiving the transmitted information data embedded with the repetitive additional information data therein;

a step for detecting the repetitive additional information data embedded from said transmitted information data;

a step for determining said additional information data based on a ~~basis of continuity~~ of the repetitive additional information data detected for a predetermined times.

9. (currently amended) A data transmission and reception method as claimed in claim 7 ~~or 8~~, wherein said information data includes at least one of video data, audio data and text data.

Claims 10-15 (canceled).

16. (currently amended) A data transmitting apparatus for transmitting information data containing additional information data therewith, comprising:

a-first means for preparing data frames of said information data into which the additional information data ~~are-is~~ embedded repetitively and separately;

a-second means for altering at least part of each of the data frame frames in accordance with predetermined patterns corresponding to additional information data to be embedded repetitively and separately therein; for the plural continuous data frames, ~~repetitively~~; and

a-third means for transmitting the information data embedded repetitively and separately with the repetitive ~~additional information data~~ therein.

17. (currently amended) A data transmitting apparatus as claimed in claim 16, wherein said third means includes means for recording the information data repetitively and separately embedded with the repetitive additional information data onto an optical information recording medium.

18. (currently amended) AA system comprising:
a data transmitting apparatus for transmitting information data containing additional information data therewith; and
a data reproducing apparatus for reproducing the transmitted information data transmitted by the data transmitting apparatus.
wherein said data transmitting apparatus comprises:
first means for preparing data frames of said information data into which the additional information data are embedded.

second means for altering at least part of each of the data frames in accordance with predetermined patterns corresponding to additional information data to be embedded, for the plural continuous frames, repetitively, and

third means for transmitting the information data embedded with the repetitive additional information data therein, and

wherein said data reproducing apparatus for reproducing the transmitted information data transmitted by the data transmitting apparatus defined in claim 16, comprising: comprises:

a-first means for receiving the transmitted information data embedded with the repetitive additional information data therein;

a-second means for detecting the repetitive additional information data embedded from said transmitted information data; and

a-third means for determining said additional information data based on a basis of continuity of the repetitive additional data detected for a predetermined times.

Claims 19 and 20 (canceled).

21. (currently amended)An information recording medium for recording data therein, comprising:

information data being reproducible; and

additional data embedded repetitively and separately into said information data and being encoded in accordance with a predetermined conversion table.

22. (currently amended)An information recording medium as claimed in Claim 21, wherein information, relating to a repetition number indicating the number of times of said additional data is repetitively and separately embedded in said information data-embedded, is recorded into a part of said information recording medium.

23. (currently amended)An information recording medium for recording data therein, comprising:
information data being reproducible in the form of plural continuous data frames; and
data repetitively and separately embedded in said information data ~~embedded into said information data of~~ said plural continuous data frames ~~repetitively~~, and being altered in accordance with predetermined patterns corresponding to additional information data.

24. (currently amended)An information recording medium as claimed in Claim 23, wherein information, relating to a repetition number of said continuous data frames of the information data, into which said data is repetitively and separately embedded, is recorded into a part of said information recording medium.

25. (previously presented) An information recording medium according to claim 21, wherein said information data is video data.

26. (currently amended) An information recording medium according to claim 21, wherein said ~~video~~ information data is audio data.

27. (previously presented) An information recording medium according to claim 23, wherein said information data is video data.

28. (currently amended) An information recording medium according to claim 21, wherein said data repetitively and separately embedded in said information data is identification information data.

29. (currently amended) An information recording medium according to claim 23, wherein said data repetitively and separately embedded in said information data is identification information data.

30. (currently amended) An information recording medium according to claim 21, wherein said data repetitively and separately embedded in said information data is control information data.

31. (currently amended) An information recording medium according to claim 23, wherein said data repetitively and separately embedded in said information data is control information data.

32. (new) A data transmission and reception method as claimed in claim 8, wherein said information data includes at least one of video data, audio data and text data.

33. (new) An information recording medium according to claim 23,
wherein said information data is audio data.